PATENT ABSTRACTS OF JAPAN

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(54) PREFERENCE INFORMATION GATHERING DEVICE AND PREFERENCE INFORMATION GATHERING METHOD

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a preference information gathering device capable of acquiring information matched with the preference of a user without the need of much labor and time for searching a program to be a selection object even when the user uses a preference acquisition instruction means.

SOLUTION: This device is provided with a preference information storage means 54 for storing preference information, the preference acquisition instruction means 605 for acquiring the preference information of the user, a user preference history storage means 591 for storing the acquired preference history of the user, means 581, 582 and 583 for extracting the recommended preference information of the user on the basis of the preference history information of the user, filtering instruction output means 601, 602 and 603 for outputting the instruction of filtering target preference information at the time of extracting the preference information and a display means 55 for executing a filtering processing on the basis of the outputted instruction, outputting only the target preference information as a result and displaying it on a screen.

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CLAIMS

[Claim(s)]
[Claim 1] A taste information storage means to memorize various taste information, and a taste acquisition directions means to acquire a user's taste information from said taste information storage means, A user taste hysteresis storage means to memorize a user's taste hysteresis acquired with said taste acquisition directions means, A means to extract the taste information which acquires a user's taste information from said taste information storage means with a taste acquisition directions means, and a user recommends to you based on the information on said user taste hysteresis storage means, A filtering instruction output means to output the instruction which faces extracting said taste information and filters the taste information on target, Taste information gathering equipment characterized by filtering processing being performed, outputting only the taste information on target as a result, and coming to have the display means which carries out a screen display based on the instruction outputted by said filtering instruction output means.
[Claim 2] Said taste acquisition directions means is taste information gathering equipment according to claim 1 characterized by the thing which it comes to display on the same screen as the display screen of a display means by which the result depended on filtering processing is displayed.
[Claim 3] The specified genre is taste information-gathering equipment according to claim 1 or 2 carry out whether various taste information exists in a taste information-storage means memorize, and that it searches according to a genre as the description in the filtering processing performed based on the instruction which said filtering instruction output means has a retrieval instruction directions means classified by genre output the retrieval instruction classified by genre, and was outputted by said retrieval instruction directions means classified by genre.
[Claim 4] The filtering processing performed based on the instruction which said

filtering instruction output means has a retrieval-by-keyword instruction directions means output a retrieval-by-keyword instruction, and was outputted by said retrieval-by-keyword instruction directions means is taste information-gathering equipment according to claim 1 or 2 carry out whether said keyword exists the inside of a taste information-storage means memorize various taste information using the inputted keyword, and that it searches as the description.

[Claim 5] said filtering instruction output means outputs a recommended program display instruction -- it pushes -- it ends -- a program display directions means -- having -- the above -- the taste information-gathering equipment according to claim 1 or 2 which characterizes by for the filtering processing performed based on the instruction outputted by the recommended program display directions means to extract the information [user] for taste based on the historical data within a user taste hysteresis storage means memorize said user's taste hysteresis.

[Claim 6] For the target taste information, said user is taste information gathering equipment according to claim 1 to 5 with which it is characterized by being broadcast-related program information.

[Claim 7] It is the taste information gathering approach in the taste information gathering equipment with which it had a user taste hysteresis storage means to memorize a taste information storage means to memorize various taste information for a user to extract taste information and memorize the hysteresis information, and taste hysteresis. The step which chooses the approach of facing that a user extracts the taste information made into the object from said taste information memorized, and filtering the taste information on target, The step which outputs the instruction for said selected filtering approach, Said taste information storage means is received based on the instruction outputted at the step which outputs said filtering instruction. The step which performs filtering processing based on the information on a user taste hysteresis storage means, The step which extracts only the taste information made into a user's object as a result of said filtering processing, The taste information gathering approach in the taste information gathering equipment characterized by coming to have the step which carries out a screen display of said extracted taste information, and the step which memorizes said extracted taste information as a user's taste hysteresis.

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] Based on the taste data which the user inputted, the

information which the user is searching for is guessed easily, and this invention chooses it from much information, and relates to the taste information gathering equipment and the taste information gathering approach a user can input his own taste data easy more quickly, about the information selecting arrangement which can be displayed.

[0002]

[Description of the Prior Art] Great information came to exist as computerization progressed these days. In connection with it, the information which the user will search for is guessed how, and is chosen, and it is carried out in the place where researches on the thing whether it can display are various. In electronic intelligence media, such as an electronic news system and television, ED about the report for which each user asks, and the system which presents information, such as a program, preferentially is furthered.

[0003] For example, the technique currently indicated by JP,11-164217,A is a technique which solves the problem that the channel expected that a user wants to view and listen cannot be found quickly, when the channel to which a user can view and listen because digitization of broadcast progresses continues increasing enormously. This acquires the program information on a TV program using the channel, current time, and TV program data which the user chose, creates the taste statistical data of a user's TV program, displays the list of the TV programs which suited a user's taste based on the taste statistical data, and supports selection of a user's TV program.

[0004] However, the following troubles exist in the technique currently indicated by above-mentioned JP,11-164217,A.

[0005] In case the taste statistical data of a user's TV program is created, the program information on the **** TV program for channels which the user chose is acquired. the time of a user viewing and listening to a TV program -- 1. -- mere zapping 2. -- creating the taste statistical data of a TV program using the TV program data of the channel which the user only chose, since the condition that are only carrying out television without ******* and the user is not watching television etc. exists -- if -- a right taste statistical data is unacquirable. Therefore, the list of the TV programs suitable for a user's taste may be unable to be displayed.

[0006] The application software as an approach of solving the above-mentioned trouble which can display the various race cards bundled for example, with the "Mebius Style" personal computer put on the market in December, 1999 Sharp Corp. called "Mebius TV" is mentioned. This can realize the so-called race card indicating equipment in installing the bundled application software in the above-mentioned personal computer, and operating it, and can acquire certainly the statistical data of the taste to a user's TV program in this race card indicating equipment.

[0007] The approach of acquiring the statistical data of taste with the race card indicating equipment by this "Mebius TV" The selection means (it is described as a

taste acquisition directions means below) which can acquire a user's taste Because arrange on the same screen as the screen where the television race card is displayed, a user chooses his favorite program from a race card and a user chooses this taste acquisition directions means A user's taste hysteresis is acquired certainly and it realizes by my hearing guessing, choosing and displaying the program which the user probably likes based on this acquired taste hysteresis out of a race card.

[0008] Below, the race card indicating equipment by "Mebius TV" explains only the point using drawing about the structure of the approach of acquiring the statistical data of taste.

[0009] Drawing 12 is the functional block diagram of the race card indicating equipment by "Mebius TV."

[0010] The component of a race-card indicating equipment consists of the 2nd storage means 39 and the input means 20 which consist of semiconductor memory which consists of semiconductor memory, such as the display means 35 which consists of an antenna 30, the tuner section 31, the program information extract section 32, the broadcast image extract section 33, the program information storage section 34, CRT, LCD (liquid crystal display), etc., a loudspeaker 36, arithmetic and program control (CPU etc. is included) 37, and ROM, such as the 1st storage means 38 and RAM, as illustrated Each program and data required to operate the race card indicating equipment of the race card display-processing section 381 and recommended program extract section 382 grade as the above-mentioned 1st storage means (ROM) 38 are memorized. Data required to operate race card indicating equipments, such as the user taste hysteresis storage section 391 and a work area which is not illustrated, are memorized by the above-mentioned 2nd storage means (RAM) 39, or working areas for carrying out a chisel activity temporarily etc. are consisted of. Moreover, an input means 20 consists of the 1st directions means 201 of a race-card display, the 2nd directions means 202 of a race-card display, a recommended program display directions means 203, a mouse cursor 204, and a taste acquisition directions means 205, and directions means other than mouse cursor 204 may be the carbon buttons in physical equipments, such as a carbon button (you may be the thing of images, such as an icon) displayed on the display screen of for example, a display means, and a keyboard. In addition, the carbon button required when operating usual personal computers, such as a carbon button for cursor advances and a carbon button for power-source ON/OFF, etc. besides the above shall exist in this input means 20.

[0011] Below, work of each component of the race card display by "Mebius TV" is described. In addition, drawing having shown an example of the screen where the race card having shown the program under present broadcast of drawing 13 on the occasion of explanation was displayed, drawing having shown an example of the screen where the race card having shown the program broadcast within one day of drawing 14 was displayed, and drawing having shown an example of the screen which

displayed the list screen which shows the recommended program of <u>drawing 15</u> use.
[0012] Arithmetic and program control 37 manages control of each component. A mouse cursor 204 is a means for choosing the various selection means displayed on the display means 35. An antenna 30 can receive a television broadcasting electric wave, and a television broadcasting electric wave can extract the broadcasting electric-wave of a specific channel (frequency) by work of the tuner section 31. Since the received television broadcasting electric wave consists of program additional information (EPG:Electric Program Guide) on which a program broadcast image and it were overlapped, program additional information is extracted by the program information extract section 32, and the extracted program additional information is memorized by the program information storage section 34. A program broadcast image is extracted by the broadcast image extract section 33, an image is displayed on the display means 35, and voice is outputted from a loudspeaker 36. The 1st directions means 201 of a race card display is a directions means which can output an instruction which displays the race card which displayed a screen like <u>drawing 13</u>, i.e., the program broadcast now, when a user performs selection processing. The program name of the program under present broadcast is displayed on the part 352 currently displayed as the program name by <u>drawing 13</u>. A user can display the program chosen as the television graphic display section 351 of the center of <u>drawing 13</u> by choosing the part 353 of the number currently displayed on the left of this program name. The 2nd directions means 202 of a race card display is a directions means which can output an instruction which displays a screen like <u>drawing 14</u>, i.e., the race card which displayed the program of a broadcast schedule like a newspaper TV section today, when a user performs selection processing. Moreover, the program in the race card display-processing section 381 and processing are started when the 1st directions means 201 of a race card display or the 2nd directions means 202 of a race card display is chosen, and display-control processing for displaying <u>drawing 13</u> or a race card like <u>drawing 14</u> is performed. Moreover, the taste acquisition directions means 205 is [Check currently displayed on <u>drawing 13</u> and <u>drawing 14</u> !] It is the thing of a carbon button.
[0013] In <u>drawing 13</u>, the program information on the program which the user chose as the user taste hysteresis storage section 391 (a title, broadcasting hours, a channel, program detailed information, etc.) is memorize by a user choose his favorite program by the mouse cursor 204 from the race cards having show only the program under present broadcast currently display on screen right-hand side, and choose the taste acquisition directions means 205 (the [Check] carbon button).
[0014] In <u>drawing 14</u>, the program information on the program which the user chose as the user taste hysteresis storage section 391 (a title, broadcasting hours, a channel, program detailed information, etc.) is memorized by a user's choosing his favorite program by the mouse cursor 204 from the race cards currently displayed on the screen upper part, and choosing the taste acquisition directions means 205 (the

[Check] carbon button).

[0015] The program and processing of the recommended program extract section 382 are started by the user as the recommended program display directions means 203 is chosen. The inclination of the program which the user probably likes is guessed based on the program information memorized by the user taste hysteresis storage section 391, a program equal to the inclination is chosen from the program memorized by the program information storage section 34, and it is displayed on the display means 35 as a recommended program. Drawing 15 expresses with the display means 35 signs that the recommended program was displayed.

[0016] In the race card display by "Mebius TV" When a user chooses his favorite program from a race card and chooses the taste acquisition directions means 205 (the [Check] carbon button) How the recommended program extract section 391 displays a recommended program based on the information the title and broadcasting hours of the program, a channel, program detailed information, etc. were remembered to be by the user taste hysteresis storage section 391, and were remembered to be here is taken. Therefore, the program information memorized by the user taste hysteresis storage section 391 is the program which the user certainly likes, acquired the program which this user likes as a user taste statistical data, and is equipped with the description and the effectiveness that we can recommend you the program which can be conjectured that a user is more fond for the method which extracts a program based on it compared with the method currently indicated by said JP,11-164217,A.

[0017]
[Problem(s) to be Solved by the Invention] However, also in the race card display by the above "Mebius TV", it has the still more nearly following technical problems.

[0018] Although it is processing while displaying the race card under present broadcast like drawing 12 , in case a user chooses his favorite program and chooses [1st] the taste acquisition directions means 205 (the [Check] carbon button) In the broadcast to which existing channels, such as CS broadcasting using a communication satellite, amount to hundreds of channels In order for a user to have to find out his favorite program out of these channels of hundreds of and to have to choose the taste acquisition directions means 205 (the [Check] carbon button), it is the problem that that a user finds out his favorite program will take time amount very much.

[0019] In the race card currently displayed [2nd] on drawing 13 , since all the programs of a broadcast schedule are displayed like a newspaper TV section today, there are very many programs, and by the time a user finds out his favorite program out of these immense numbers of programs and it chooses the taste acquisition directions means 205 (the [Check] carbon button), it is the problem of taking time amount very much.

[0020] It takes a user a great effort and time amount to discover the program used as the object which chooses the taste acquisition directions means 205 (the [Check] carbon button) in the case of which.

[0021] The place which it was made in order that this invention might solve the above-mentioned trouble, and is made into the object is offering the taste information-gathering equipment and the taste information-gathering approach of acquiring the information which suited liking of a user, without taking a great effort and time amount to discover the program used as the object for selection, even if a user uses a taste acquisition directions means.

[0022] Specifically, it becomes the following contents.

[0023] 1) It is making it display on the same screen as the screen which shows the result of having searched the program with genres (a film, a drama, variety, etc.) or a keyword for the taste acquisition directions means. By this, since a user can search a program with a genre or a keyword and can filter a program first before he chooses a taste acquisition directions means, he finds out a favorite program for a short time, and he becomes possible [choosing a taste acquisition directions means]. For example, after a genre searches the program which is a film and displays only the TV program about a film by genre retrieval, the user who very likes a film chooses his favorite program from the inside, and becomes that what is necessary is just to choose a taste acquisition directions means. [especially]

[0024] 2) It is displaying a taste acquisition directions means on the same screen as the screen which shows the list of recommended programs (what guessed the program which the user's probably likes based on the taste statistical data of a user's acquired program, and showed those results the list table). By this, since especially a user can find out his favorite program out of the program which was conjectured to be probably fond and was put in order, he can find out a favorite program in a short time, and can choose a taste acquisition directions means immediately.

[0025] a resolution [a that it had taken time amount very much problem] since the film had to judge whether it was favorite its own film and had to choose the taste acquisition directions means, after the user looked for the program of a film first by making it the above method out of the race card currently displayed by drawing 14 in the case of said conventional method .

[0026]
[Means for Solving the Problem] A taste information storage means by which the taste information gathering equipment in this invention memorizes various taste information, A taste acquisition directions means to acquire a user's taste information from said taste information storage means, A user taste hysteresis storage means to memorize a user's taste hysteresis acquired with said taste acquisition directions means, A means to extract the taste information which acquires a user's taste information from said taste information storage means with a taste acquisition directions means, and a user recommends to you based on the information on said user taste hysteresis storage means, A filtering instruction output means to output the instruction which faces extracting said taste information and filters the taste information on target, Based on the instruction outputted by said filtering instruction

output means, filtering processing is performed and it is characterized by coming to have the display means which, as a result, outputs and carries out a screen display only of the taste information on target.

[0027] Furthermore, it is characterized by coming to display the taste information gathering equipment in this invention on the same screen as the display screen of a display means by which the result which said taste acquisition directions means depends on filtering processing is displayed.

[0028] Moreover, the taste information-gathering equipment in this invention has a retrieval instruction directions means classified by genre to by_which said filtering instruction output means outputs the retrieval instruction classified by genre, and the specified genre carries out whether various taste information exists in a taste information-storage means memorize, and that it searches according to a genre as the description in the filtering processing performed based on the instruction outputted by said retrieval instruction directions means classified by genre.

[0029] Moreover, the taste information-gathering equipment in this invention has a retrieval-by-keyword instruction directions means to by_which said filtering instruction output means outputs a retrieval-by-keyword instruction, and the filtering processing performed based on the instruction outputted by said retrieval-by-keyword instruction directions means carries out whether said keyword exists the inside of a taste information-storage means memorize various taste information using the inputted keyword, and that it searches as the description.

[0030] moreover, said filtering instruction output means outputs a recommended program display instruction in the taste information-gathering equipment in this invention -- it pushes -- it ends -- a program display directions means -- having -- the above -- the filtering processing performed based on the instruction outputted by the recommended program display directions means carries out that a user extracts the information for taste based on the historical data within the user taste hysteresis storage means memorize said user's taste hysteresis as the description.

[0031] Furthermore, with the taste information gathering equipment in this invention, the target said user's taste information is characterized by being broadcast-related program information.

[0032] Moreover, the taste information gathering approach in this invention is set to the taste information gathering equipment with which it had a user taste hysteresis storage means to memorize a taste information storage means to memorize various taste information for a user to extract taste information and memorize the hysteresis information, and taste hysteresis. The step which chooses the approach of facing that a user extracts the taste information made into the object from said taste information memorized, and filtering the taste information on target, The step which outputs the instruction for said selected filtering approach, Said taste information storage means is received based on the instruction outputted at the step which outputs said filtering instruction. The step which performs filtering processing based on the information on

a user taste hysteresis storage means, It is characterized by coming to have the step which extracts only the taste information made into a user's object, the step which carries out a screen display of said extracted taste information, and the step which memorizes said extracted taste information as a user's taste hysteresis as a result of said filtering processing.

[0033]

[Embodiment of the Invention] Below, the operation gestalt of the taste information gathering equipment in this invention and the taste information gathering approach is explained at a detail using a drawing.

[0034] In addition, in the following examples, in order to make it intelligible, it explains as taste information gathering equipment supposing a personal computer, but this invention may be which thing as long as target taste information gathering equipment is electronic equipment which contains another computer and another word processor, an electronic notebook, a Personal Digital Assistant, a portable navigation terminal, POS, ECR, a game machine, etc., for example.

[0035] Drawing 1 is the functional block diagram of the taste information gathering equipment of this invention.

[0036] The component of taste information-gathering equipment consists of the 2nd storage means 59 and the input means 60 which consist of semiconductor memory which consists of semiconductor memory, such as the display means 55 which consists of an antenna 50, the tuner section 51, the program information extract section 52, the broadcast image extract section 53, the program information-storage section 54, CRT, LCD (liquid crystal display), etc., a loudspeaker 56, arithmetic and program control (CPU etc. is included) 57, and ROM, such as the 1st storage means 58 and RAM, as illustrated Each program and data required to operate the taste information gathering equipment of the recommended program extract section 581, the retrieval processing section 582 classified by genre, and retrieval-by-keyword processing section 583 grade as the above-mentioned 1st storage means (ROM) 58 are memorized. Data required to operate these taste information gathering equipments, such as the user taste hysteresis storage section 591 and a work area which is not illustrated, are memorized by the above-mentioned 2nd storage means (RAM) 59, or working areas for carrying out a chisel activity temporarily etc. are consisted of. Moreover, the input means 60 consists of the retrieval instruction directions means 601 classified by genre, the retrieval-by-keyword instruction directions means 602, the recommended program display directions means 603, a mouse cursor 604, a taste acquisition directions means 605, and an alphabetic character input means 606. Directions means other than a mouse cursor 604 and alphabetic character input means 605 may be the carbon buttons in physical equipments, such as a carbon button (you may be the thing of images, such as an icon) displayed on the display screen of for example, a display means, and a keyboard. Moreover, you may be a key in physical equipments, such as an alphabetic character

carbon button (you may be the thing of images, such as an icon) with which the alphabetic character input means 605 was also displayed on the display screen of a display means, and a keyboard. In addition, the carbon button required when operating usual personal computers, such as a carbon button for cursor advances and a carbon button for power-source ON/OFF, etc. besides the above shall exist in this input means 20. moreover The above-mentioned antenna 50, the tuner section 51, the program information extract section 52, the broadcast image extract section 53, the program information storage section 54, the display means 55, a loudspeaker 56, arithmetic and program control 57, the recommended program extract section 581 within the 1st storage means 58, the user taste hysteresis storage section 591 within the 2nd storage means 59, It is related with the recommended program display directions means 603 within the input means 60, a mouse cursor 604, and the taste acquisition directions means 605. The antenna 30 of drawing 12 explained by said [Description of the Prior Art], respectively, the tuner section 31, the program information extract section 32, the broadcast image extract section 33, the program information storage section 34, the display means 35, a loudspeaker 36, arithmetic and program control 37, the recommended program extract section 382 within the 1st storage means 38, It corresponds to the recommended program display directions means 203 within the user taste hysteresis storage section 391 within the 2nd storage means 39, and the input means 20, a mouse cursor 204, and the taste acquisition directions means 205, and the same function and role are played.

[0037] Below, work of each component of taste information gathering equipment is described. In addition, on the occasion of explanation, the functional block diagram of the taste information gathering equipment of drawing 1 , drawing having shown the data configuration (format) of the program additional information memorized by the program information storage section of drawing 2 , and drawing having shown the data configuration (format) in which the program which a user likes is registered into the user taste hysteresis storage section of drawing 3 are used.

[0038] Arithmetic and program control 57 manages control of each component. A mouse cursor 604 is a means for choosing the various selection means (a carbon button or image icon) displayed on the display means 55. An antenna 50 can receive a television broadcasting electric wave, and a television broadcasting electric wave can extract the broadcasting electric-wave of a specific channel (frequency) by work of the tuner section 51. Since the received television broadcasting electric wave consists of program additional information (EPG:ElectricProgram Guide) on which a program broadcast image and it were overlapped, program additional information is extracted by the program information extract section 52, and the extracted program additional information is memorized by the program information storage section 54 with a configuration as shown in drawing 2 .

[0039] The DS of this drawing 2 is what showed an example of storing of the program additional information memorized by this program information storage section 54, and

each program memorized by the program information storage section 54 serves as a database which consisted of broadcast time 54a, start time 54b, end time 54c, channel 54d, title 54e, genre 54f, and an item of 54g of detailed information. A program broadcast image is extracted by the broadcast image extract section 53, an image is displayed on the display means 55, and voice is outputted from a loudspeaker 56. Moreover, database registration is carried out with the configuration as the program which a user likes shows to drawing 3 at the user taste hysteresis storage section 591.

[0040] The DS of this drawing 3 is what showed an example by which the program which a user likes is registered into this user taste hysteresis storage section 591, and each program registered into the user taste hysteresis storage section 591 serves as a database which consisted of broadcast time 591a, start time 591b, end time 591c, channel 591d, title 591e, genre 591f, and an item of 591g of detailed information. In addition, it explains by what kind of approach a user registers a favorite program into the user taste hysteresis storage section 591 later.

[0041] Moreover, suppose that it explains using the flow chart which showed the flow of the role of each means to constitute the 1st storage means 58 and the input means 60, respectively, processing of this equipment shown below about moving (work), and actuation.

[0042] The taste information gathering equipment and the taste information gathering approach of acquiring the information which suited liking of a user are concretely explained including the flow of processing, without taking a great effort and time amount to discover the program which serves as an object for selection because the user who is the description of this invention uses a taste acquisition directions means for below.

[0043] The following two kinds can be considered as this implementation approach.

[0044] 1) It is making it display on the same screen as the screen which shows the result of having searched the program with genres (a film, a drama, variety, etc.) or a keyword for the taste acquisition directions means. By this, since a user can search a program with a genre or a keyword and can filter a program first before he chooses a taste acquisition directions means, he finds out a favorite program for a short time, and he becomes possible [choosing a taste acquisition directions means]. For example, after a genre searches the program which is a film and displays only the TV program about a film by genre retrieval, the user who very likes a film chooses his favorite program from the inside, and becomes that what is necessary is just to choose a taste acquisition directions means. [especially]

[0045] 2) It is displaying a taste acquisition directions means on the same screen as the screen which shows the list of recommended programs (what guessed the program which the user's probably likes based on the taste statistical data of a user's acquired program, and showed those results the list table). By this, since especially a user can find out his favorite program out of the program which was conjectured to

be probably fond and was put in order, he can find out a favorite program in a short time, and can choose a taste acquisition directions means immediately.

[0046] The above-mentioned genre another retrieval processings (a film, a drama, variety, etc.), retrieval-by-keyword processing, and recommended program extract processing are explained as examples 1, 2, and 3, respectively.

[0047] (Example 1) Drawing 4 is the flow chart which showed the flow of the processing at the time of the retrieval according to genre when a user chooses the retrieval instruction directions means classified by genre. Drawing 5 is drawing having shown an example of the screen to which the input in the retrieval screen classified by genre is urged. Drawing 6 is drawing having shown an example of the screen where the retrieval result in the retrieval processing classified by genre was displayed.

[0048] At step S101, it judges whether the user chose the retrieval instruction directions means 601 classified by genre, and the retrieval instruction classified by genre was outputted. If are outputted and it is not progressed and outputted to step S102, a monitor is succeedingly continued as it is at step S101.

[0049] At step S102, since the retrieval instruction classified by genre is outputted, the retrieval processing section 582 classified by genre is started, and processing of the retrieval according to genre starts. As for the following processings, the retrieval processing section 582 classified by genre shall manage processing and control altogether.

[0050] The initial screen of the retrieval according to genre as shown in drawing 5 , i.e., the screen to which the input of a genre name is urged, is expressed as step S103. A user shall use alphabetic character input means 606 grade for this genre name input column 111, and shall input a genre name.

[0051] At step S104, a judgment whether the genre name was inputted into the genre name input column 111 is made. A monitor is continued as it is until it is inputted at step S104, if are inputted and it is not progressed and inputted into step S105.

[0052] A search according to genre is performed based on the genre name by which the input was carried out [above-mentioned], and the retrieval result is expressed as step S105. For example, if a "film" is inputted into the genre name input column 111, with reference to the program information storage section 54, the retrieval processing section 582 classified by genre will search that from which the genre (data of a genre 54f [of drawing 2] train) serves as a "film", and will express the found information as step S104 as a result. Drawing 6 is the screen which displayed this retrieval result, and the program of a "film" is displayed for the genre on the display column 112 in the shape of a list as a result of middle of the screen.

[0053] In addition, although the taste acquisition directions means (the [Check] carbon button (image by the icon) corresponds) 605 is shown in a display screen as a result of being based on genre retrieval of drawing 6 A user chooses his favorite program from the program currently displayed as a result by the mouse cursor 604. By choosing the taste acquisition directions means (the [Check] carbon button (image

by the icon) corresponding) 605, he can register a favorite program into the user taste hysteresis storage section 591.

[0054] At step S106, it judges whether as a result of being based on genre retrieval of above-mentioned drawing 6 , the program was chosen from the display screen with the mouse etc., and the taste acquisition directions means (the [Check] carbon button (image by the icon) corresponds) 605 currently displayed on the same screen was chosen. If chosen, it progresses to step S107, and if not chosen, it will supervise succeedingly at step S106.

[0055] At step S107, the information on the program which the user chose as the user taste hysteresis storage section 591 at the above-mentioned step S106 is registered like drawing 3 .

[0056] For example, since the 2nd information on a list is specified, in the case of drawing 6 , it is carrying out selection assignment of the taste acquisition directions means (the [Check] carbon button's (image's by the icon) corresponding) 605 in this condition, and it registers the program specified as the user taste hysteresis storage section 591 as mentioned above.

[0057] (Example 2) Drawing 7 is the flow chart which showed the flow of the processing at the time of retrieval by keyword when a user chooses a retrieval-by-keyword instruction directions means. Drawing 8 is drawing having shown an example of the screen to which the input in a retrieval-by-keyword screen is urged. Drawing 9 is drawing having shown an example of the screen where the retrieval result in retrieval-by-keyword processing was displayed.

[0058] At step S201, it judges whether the user chose the retrieval-by-keyword instruction directions means 602, and the retrieval-by-keyword instruction was outputted. If are outputted and it is not progressed and outputted to step S202, a monitor is succeedingly continued as it is at step S201.

[0059] At step S202, since the retrieval-by-keyword instruction is outputted, the retrieval-by-keyword processing section 583 is started, and processing of retrieval by keyword starts. As for the following processings, the retrieval-by-keyword processing section 583 shall manage processing and control altogether.

[0060] The initial screen of retrieval by keyword as shown in drawing 8 , i.e., the screen to which the input of a keyword is urged, is expressed as step S203. A user shall use alphabetic character input means 606 grade for this keyword input column 121, and shall input a keyword.

[0061] At step S204, a judgment whether the keyword was inputted into the keyword input column 121 is made. A monitor is continued as it is until it is inputted at step S204, if are inputted and it is not progressed and inputted into step S205.

[0062] Retrieval by keyword is performed based on the keyword by which the input was carried out [above-mentioned], and the retrieval result is expressed as step S205. For example, if a "cake" is inputted into the keyword input column 121, the retrieval-by-keyword processing section 583 will search with step S204 the program

in which the close alphabetic character "cake" is with reference to the program information storage section 54 at a program title (data of the train of title 54e of drawing 2), or detailed information (data of the train of 54g of detailed information of drawing 2), and the found program information is displayed as a result. Drawing 9 is the screen which displayed this retrieval result, and the program by which the character string a "cake" is contained in a program title (data of the train of title 54e of drawing 2) or detailed information (data of the train of 54g of detailed information of drawing 2) is displayed on the display column 122 in the shape of a list as a result of middle of the screen.

[0063] In addition, although the taste acquisition directions means (the [Check] carbon button (image by the icon) corresponds) 605 is shown in a display screen as a result of being based on the retrieval by keyword of drawing 9 A user chooses his favorite program from the program currently displayed as a result by the mouse cursor 604. By choosing the taste acquisition directions means (the [Check] carbon button (image by the icon) corresponding) 605, he can register a favorite program into the user taste hysteresis storage section 591.

[0064] At step S206, it judges whether as a result of being based on the retrieval by keyword of above-mentioned drawing 9 , the program was chosen from the display screen with the mouse etc., and the taste acquisition directions means (the [Check] carbon button (image by the icon) corresponds) 605 currently displayed on the same screen was chosen. If chosen, it progresses to step S207, and if not chosen, it will supervise succeedingly at step S206.

[0065] At step S207, the information on the program which the user chose as the user taste hysteresis storage section 591 at the above-mentioned step S206 is registered like drawing 3 .

[0066] For example, since the 2nd information on a list is specified, in the case of drawing 9 , it is carrying out selection assignment of the taste acquisition directions means (the [Check] carbon button's (image's by the icon) corresponding) 605 in this condition, and it registers the program specified as the user taste hysteresis storage section 591 as mentioned above.

[0067] (Example 3) Drawing 10 is the flow chart which showed the flow of a recommended program display process when a user chooses a recommended program display directions means. Drawing 11 is drawing having shown an example of the screen where the result in recommended program display processing was displayed.

[0068] At step S301, it judges whether the user chose the recommended program display directions means 603, and the recommended program display instruction was outputted. If are outputted and it is not progressed and outputted to step S302, a monitor is succeedingly continued as it is at step S301.

[0069] At step S302, since the recommended program display instruction is outputted, the recommended program extract section 581 is started and processing of an extract and display of a recommended program starts. As for the following

processings, the recommended program extract section 581 shall manage processing and control altogether.

[0070] in step S303, it started at the above-mentioned step S302 -- it pushes -- it ends -- the program extract section 581 displays it in the shape of [132] a list on a screen from the program memorized by the program information-storage section 54 using the information on the user taste hysteresis storage section 591 that the information on the program which a user likes is put in a database, as the program which a user is likely to like is searched and it is shown in drawing 11 as a recommended program. Here, using the information on the user taste hysteresis storage section 591, since it differs, the approach of searching and displaying the program which a user is likely to like from the program information storage section 54 is not described as the main point of this invention in detail. However, this approach may be an approach of extracting a keyword with high frequent appearance frequency out of the program information memorized by the user taste hysteresis storage section 591, searching the program containing that keyword from the program information storage section 54, and displaying that program as described by JP,11-16427,A.

[0071] In addition, although the taste acquisition directions means (the [Check] carbon button (image by the icon) corresponds) 605 is shown in a display screen as a result of being based on the recommended program extract of drawing 11 A user chooses his favorite program from the program currently displayed as a result by the mouse cursor 604. By choosing the taste acquisition directions means (the [Check] carbon button (image by the icon) corresponding) 605, he can register a favorite program into the user taste hysteresis storage section 591.

[0072] At step S304, it judges whether as a result of being based on the recommended program extract of above-mentioned drawing 11 , the program was chosen from the display screen with the mouse etc., and the taste acquisition directions means (the [Check] carbon button (image by the icon) corresponds) 605 currently displayed on the same screen was chosen. If chosen, it progresses to step S305, and if not chosen, it will supervise succeedingly at step S304.

[0073] At step S305, the information on the program which the user chose as the user taste hysteresis storage section 591 at the above-mentioned step S304 is registered like drawing 3 .

[0074] For example, since the 2nd information on a list is specified, in the case of drawing 11 , it is carrying out selection assignment of the taste acquisition directions means (the [Check] carbon button's (image's by the icon) corresponding) 605 in this condition, and it registers the program specified as the user taste hysteresis storage section 591 as mentioned above.

[0075] In addition, a filtering instruction output means output the instruction which filters a program in each above-mentioned example is choosing the retrieval instruction directions means classified by genre at an example 1, and since the

retrieval instruction classified by genre is outputted, the retrieval processing section classified by genre is started and processing of the retrieval according to genre is performed, the retrieval instruction directions means classified by genre to which this retrieval instruction classified by genre makes output corresponds. In the example 2, since a retrieval-by-keyword instruction is outputted, the retrieval-by-keyword processing section is started and processing of retrieval by keyword is performed by choosing a retrieval-by-keyword instruction directions means, the retrieval-by-keyword instruction directions means to which this retrieval-by-keyword instruction is made to output corresponds. In the example 3, since a recommended program display instruction is outputted, the recommended program extract section is started and processing of an extract and display of a recommended program is performed by choosing a recommended program display directions means, the recommended program display directions means to which this recommended program display instruction is made to output corresponds. It can collect.

[0076] Moreover, as an example, although the above-mentioned genre another retrieval processings (a film, a drama, variety, etc.), retrieval-by-keyword processing, and recommended program extract processing were explained, it is not actually limited to this. Moreover, the target information is also applicable also to various fields not only including a TV program but the delivery information by Internet related [, such as the latest music distribution, distribution of books information, and distribution of navigation information,].

[0077] In addition, the content in the operation gestalt mentioned so far is not limited to the above-mentioned publication, unless the main point of this invention is changed.

[0078]

[Effect of the Invention] The following effectiveness is acquired in the taste information gathering equipment and the taste information gathering approach of this invention.

[0079] The taste acquisition directions means was displayed on the retrieval result screen classified by genre, the retrieval-by-keyword result screen, and the same screen of the result which shows the recommended program in this invention. Consequently, since it enabled it to choose a taste acquisition directions means after the user displayed only the recommended program or displayed first the result searched a genre exception and according to the keyword out of the program which exists so much, it becomes easy in a short time for a user to find out his favorite program.

[0080] After [which is liking of a user about the number of programs displayed especially] carrying out extent filtering, it is realizable by having enabled it to choose a taste acquisition directions means.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] It is the block diagram having shown functional block of the taste information gathering equipment of this invention.
[Drawing 2] It is drawing having shown the data configuration (format) of the program additional information memorized by the program information storage section of the taste information gathering equipment of this invention.
[Drawing 3] It is drawing having shown the data configuration (format) in which the program which a user likes is registered into the user taste hysteresis storage section of the taste information gathering equipment of this invention.
[Drawing 4] It is the flow chart which showed the flow of the processing at the time of the retrieval according to genre.
[Drawing 5] It is drawing having shown an example of the screen to which the input in the retrieval screen classified by genre is urged.
[Drawing 6] It is drawing having shown an example of the screen where the retrieval result in the retrieval processing classified by genre was displayed.
[Drawing 7] It is the flow chart which showed the flow of the processing at the time of retrieval by keyword.
[Drawing 8] It is drawing having shown an example of the screen to which the input in a retrieval-by-keyword screen is urged.
[Drawing 9] It is drawing having shown an example of the screen where the retrieval result in retrieval-by-keyword processing was displayed.
[Drawing 10] It is the flow chart which showed the flow of the processing at the time of a recommended program display.
[Drawing 11] It is drawing having shown an example of the recommended program display screen.
[Drawing 12] It is the functional block diagram of the race card indicating equipment by "Mebius TV" mentioned as a conventional example.
[Drawing 13] It is drawing having shown an example of the screen where the race card having shown the program under current broadcast was displayed.
[Drawing 14] It is drawing having shown an example of the screen where the race card having shown the program broadcast within one day was displayed.
[Drawing 15] It is drawing having shown an example of the screen which displayed the list screen which shows the recommended program.
[Description of Notations]
20 60 Input means
201 1st Directions Means of Race Card Display
202 2nd Directions Means of Race Card Display
203 603 Recommended program display directions means

204 604 Mouse cursor

205 605 Taste acquisition directions means

601 Retrieval Instruction Directions Means Classified by Genre

602 Retrieval-by-Keyword Instruction Directions Means

606 Alphabetic Character Input Means

30 50 Antenna

31 51 Tuner section

32 52 Program information extract section

33 53 Broadcast image extract section

34 54 Program information storage section

35 55 Display means

36 56 Loudspeaker

37 57 Arithmetic and program control

38 58 The 1st storage means

381 Race Card Display-Processing Section

382 581 Recommended program extract section

582 Retrieval Processing Section Classified by Genre

583 Retrieval-by-Keyword Processing Section

39 59 The 2nd storage means

391 591 User taste hysteresis storage section